CLAIMS

- 1. A voice processing system characterized by
- 2 comprising:
- 3 a terminal which transmits input voice
- 4 information and outputs received information;
- 5 a voice processing unit which performs voice
- 6 processing on the basis of voice information from said
- 7 terminal; and
- 8 an information providing unit which receives a
- 9 voice processing result obtained by said voice
- 10 processing unit and transmits information reflecting the
- 11 voice processing result to said terminal,
- wherein said terminal, said voice processing
- 13 unit, and said information providing unit share
- 14 processing identification information corresponding to a
- 15 series of processes performed by said voice processing
- 16 unit and said information providing unit on the basis of
- 17 the voice information.
 - 2. A voice processing system according to
- 2 claim 1, characterized in that said voice processing
- 3 unit comprises voice processing executing means for
- 4 performing at least one of voice recognition processing,
- 5 interaction processing, and collation processing as the
- 6 voice processing.
 - 3. A voice processing system according to
- 2 claim 1, characterized in that one of said information
- 3 providing unit and said voice processing unit comprises

4 identification information generating means for 5 generating the processing identification information. 4. A voice processing system according to 2 claim 3, characterized in that one of said information 3 providing unit and said voice processing unit further 4 comprises communication means for transmitting the 5 generated processing identification information to said 6 terminal. 5. A voice processing system according to 2 claim 4, characterized in that said terminal comprises 3 communication means for receiving the processing 4 identification information generated by one of said 5 information providing unit and said voice processing 6 unit and transmitting the received processing 7 identification information to the other of said 8 information providing unit and said voice processing 9 unit. A voice processing system according to 2 claim 4, wherein said terminal comprises communication 3 means for receiving the processing identification 4 information generated by said identification information 5 generating means of said information providing unit and 6 transmitting the received processing identification 7 information to said voice processing unit together with 8 the input voice information. 7. A voice processing system according to 2 claim 1, characterized in that the processing

- 3 identification information is unique identification
- 4 information of said terminal.
 - 8. A voice processing system according to
- 2 claim 7, characterized in that said terminal comprises
- 3 unique identification information output means
- 4 for outputting the unique identification information,
- 5 and
- 6 communication means for transmitting the
- 7 unique identification information from said unique
- 8 identification information means as the processing
- 9 identification information to said voice processing unit
- 10 and said information providing unit.
 - 9. A voice processing system according to
 - 2 claim 8, characterized in that said unique
 - 3 identification information output means outputs, as the
 - 4 unique identification information without any change,
 - 5 terminal identification information held in advance by
 - 6 said terminal.
 - 10. A voice processing system according to
 - 2 claim 8, characterized in that said unique
- 3 identification information output means comprises means
- 4 for generating and outputting the unique identification
- 5 information on the basis of terminal identification
- 6 information held in advance by said terminal.
 - 11. A voice processing system according to
- 2 claim 1, characterized in that
- 3 said terminal comprises communication means

- 4 for transmitting the processing identification
- 5 information to said voice processing unit together with
- 6 the input voice information, and
- 7 said voice processing unit comprises
- 8 reception means for receiving the voice
- 9 information and the processing identification
- 10 information from said terminal,
- voice processing executing means for executing
- 12 voice processing for the received voice information, and
- 13 transmission means for transmitting the
- 14 processing identification information to said
- 15 information providing unit upon containing the
- 16 information in a voice processing result obtained by
- 17 said voice processing executing means.
 - 12. A voice processing system according to
- 2 claim 1, characterized in that said terminal comprises
- 3 communication means for transmitting a transmission
- 4 packet having the processing identification information
- 5 stored in a header portion to said voice processing
- 6 unit.
- 13. A voice processing system according to
- 2 claim 1, characterized in that
- 3 said information providing unit comprises
- 4 reception means for receiving, together with
- 5 the processing identification information, a voice
- 6 processing result obtained by said voice processing
- 7 unit,

- 8 information management means for preparing
- 9 resultant information reflecting the voice processing
- 10 result, in correspondence with the processing
- 11 identification information, and
- 12 transmission means for transmitting the
- 13 resultant information to said terminal, and
- 14 said terminal comprises output means for
- 15 outputting the resultant information from said
- 16 information providing unit.
 - 14. A voice processing system according to
- 2 claim 1, characterized in that
- 3 said information providing unit comprises
- 4 reception means for receiving, together with
- 5 the processing identification information, a voice
- 6 processing result obtained by said voice processing
- 7 unit,
- 8 information management means for preparing
- 9 content information reflecting the voice processing
- 10 result, in correspondence with the processing
- 11 identification information, and
- 12 transmission means for transmitting the
- 13 content information to said terminal, and
- 14 said terminal comprises output means for
- 15 outputting the content information from said information
- 16 providing unit.
 - 15. A voice processing system according to
- 2 claim 1, characterized in that said information

- 3 providing unit comprises
- first reception means for receiving, together
- 5 with the processing identification information, a voice
- 6 processing result obtained by said voice processing
- 7 unit, and
- 8 information management means for placing
- 9 content information reflecting the voice processing
- 10 result in a place represented by URL (Uniform Resource
- 11 Locator) information containing the processing
- 12 identification information, and
- first transmission for transmitting the
- 14 content information corresponding to the URL information
- 15 designated by said terminal to said terminal.
 - 16. A voice processing system according to
 - 2 claim 15, characterized in that said information
 - 3 providing unit further comprises
 - 4 second transmission means for transmitting
 - 5 recognition resultant information corresponding to input
 - 6 voice which reflects the voice processing result to said
 - 7 terminal,
 - 8 third transmission means for transmitting, to
 - 9 said terminal, the content information corresponding to
- 10 the URL information designated by said terminal which
- 11 has received the recognition resultant information.
 - 17. A voice processing system according to
 - 2 claim 1, characterized in that the voice information is
 - 3 at least one of digitalized voice data, compressed voice

4 data, and a feature vector. A voice processing system according to 2 claim 1, characterized in that 3 said terminal, said voice processing unit, and 4 said information providing unit are respectively a client, a voice processing server, and an information 5 providing server which are communication-connected to 6 7 each other. said client comprises 9 first transmission means for transmitting a 10 service request signal to said information providing 11 server when a service request is issued, 12 reception means for receiving the processing 13 identification information transmitted from said 14 information providing server as a response to the service request signal, and 15 16 second transmission means for transmitting the input voice information to said voice processing server 17 together with the processing identification information, 18 19 said voice processing server comprises 20 reception means for receiving the voice 21 information and the processing identification information from said client, 22 23 voice processing executing means for executing 24 voice processing for the received voice information, and 25 transmission means for transmitting a voice 26 processing result obtained by said voice processing

- 27 executing means and the processing identification
- 28 information to said information providing server, and
- said information providing server comprises
- 30 reception means for receiving the service
- 31 request signal from said client and the voice processing
- 32 result and the processing identification information
- 33 from said voice processing server,
- 34 identification information generating means
- 35 for generating the processing identification information
- 36 when the service request signal is received,
- information management means for generating
- 38 information to be presented to said client on the basis
- 39 of the processing identification information generated
- 40 by said identification information generating means, and
- 41 generating information reflecting the voice processing
- 42 result in correspondence with the processing
- 43 identification information from said voice processing
- 44 server, and
- 45 transmission means for transmitting the
- 46 generated processing identification information and the
- 47 information to said client.
 - 19. A voice processing system according to
- 2 claim 1, characterized in that
- 3 said terminal, said voice processing unit, and
- 4 said information providing unit are respectively a
- 5 client, a voice processing server, and an information
- 6 providing server which are communication-connected to

7 each other, 8 said client comprises 9 unique identification information output means 10 for outputting unique identification information of said 11 client as the processing identification information, first transmission means for transmitting a 12 13 service request signal and the processing identification 14 information to said information providing server when a 15 service request is issued, and 16 second transmission means for transmitting the 17 input voice information to said voice processing server 18 together with the processing identification information, 19 said voice processing server comprises 20 reception means for receiving the voice 21 information and the processing identification 22 information from said client, 23 voice processing executing means for executing 24 voice processing for the received voice information, and 25 transmission means for transmitting a voice 26 processing result obtained by said voice processing 27 means and the processing identification information to said information providing server, and 28 29 said information providing server comprises 30 reception means for receiving the service 31 request signal and the processing identification

information from said client and the voice processing

result and the processing identification information

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36 information to be presented to said client on the basis 37 of the processing identification information from said 38 client, and generating information reflecting the voice 39 processing result in correspondence with the processing 40 identification information from said voice processing 41 server, and 42 transmission means for transmitting the 43 information generated by said information management 44 means to said client. A voice processing system according to 2 claim 19, characterized in that said unique 3 identification information output means uses, as the unique identification information, terminal 4 5 identification information held in advance by said 6 client. A voice processing system according to 2 claim 19, characterized in that said unique identification information output means comprises means 3 4 for generating the unique identification information on 5 the basis of terminal identification information held in 6 advance by said client. 22. A voice processing system according to

information management means for generating

from said voice processing server,

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said information providing unit are respectively a

said terminal, said voice processing unit, and

claim 1, characterized in that

each other, 8 said client comprises first transmission means for transmitting a 10 service request signal to said information providing 11 server when a service request is issued, 12 second transmission means for transmitting a 13 voice processing request signal to said voice processing 14 server, 15 reception means for receiving the processing 16 identification information transmitted from said voice 17 processing server as a response to the voice processing 18 request signal, 19 third transmission means for transmitting the 20 received processing identification information to said 21 information providing server, and

client, a voice processing server, and an information

providing server which are communication-connected to

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- 22 fourth transmission means for transmitting the
- 23 input voice information to said voice processing server
- 24 together with the processing identification information,
- 25 said voice processing server comprises
- 26 first reception means for receiving the voice
- 27 processing request signal from said client,
- 28 identification information generating means
- 29 for generating the processing identification information
- 30 when the voice processing request signal is received,
- 31 first transmission means for transmitting the

33 client, 34 second reception means for receiving the voice 35 information and the processing identification 36 information from said client, 37 voice processing executing means for executing 38 voice processing for the voice information from said 39 client, and 40 transmission means for transmitting a voice 41 processing result obtained by said voice processing 42 executing means and the processing identification 43 information from said client to said information 44 providing server, and 45 said information providing server comprises 46 reception means for receiving the service 47 request signal and the processing identification 48 information from said client and the voice processing 49 result and the processing identification information 50 from said voice processing server, 51 information management means for generating 52 information to be presented to said client on the basis 53 of the service request signal from said client and 54 generating information reflecting the voice processing 55 result in correspondence with the processing

generated processing identification information to said

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server, and

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identification information from said voice processing

transmission means for transmitting the

- information generated by said information management means to said client.
 - 23. A voice processing method characterized
 - 2 by comprising the steps of:
 - 3 causing a terminal to transmit input voice
 - 4 information to a voice processing unit;
 - 5 causing the voice processing unit to perform
 - 6 voice processing for the voice information from the
 - 7 terminal;
 - 8 transmitting a voice processing result to an
 - 9 information providing unit; and
- 10 causing the information providing unit to
- 11 prepare information reflecting the voice processing
- 12 result obtained by the voice processing unit, and the
- 13 step of transmitting the prepared information to the
- 14 terminal,
- wherein the terminal, the voice processing
- 16 unit, and the information providing unit share
- 17 processing identification information corresponding to a
- 18 series of processes performed by the voice processing
- 19 unit and the information providing unit on the basis of
- 20 the voice information.
 - 24. A voice processing method according to
 - 2 claim 23, characterized in that
 - 3 the terminal, the voice processing unit, and
 - 4 the information providing unit are respectively a
 - 5 client, a voice processing server, and an information

7 each other, and 8 the method comprises the steps of 9 causing the client to transmit a service 10 request signal to the information providing server, 11 causing the information providing server to 12 generate the processing identification information when 13 receiving the service request signal, generating 14 information to be presented to the client on the basis 15 of the processing identification information, and 16 transmitting the generated processing identification information and the information to the client, 17 18 causing the client to transmit the input voice 19 information to the voice processing server together with 20 the processing identification information from the 21 information providing server, 22 causing the voice processing server to perform 23 voice processing for the voice information from the 24 client, and transmitting a voice processing result and 25 the processing identification information from the 26 client to the information providing server, and 27 causing the information providing server to

providing server which are communication-connected to

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prepare, in correspondence with the processing

identification information from the voice processing

server, information reflecting the voice processing

result obtained by the voice processing server, and

transmitting the prepared information to the terminal.

claim 23, characterized in that 2. 3 the terminal, the voice processing unit, and 4 the information providing unit are respectively a 5 client, a voice processing server, and an information 6 providing server which are communication-connected to 7 each other, and 8 the method comprises the steps of 9 causing the client to transmit a service 10 request signal and the processing identification 11 information to the information providing server, 12 causing the information providing server to 13 generate information to be presented to the client on 14 the basis of the processing identification information 15 when receiving the service request signal and the processing identification information, and transmitting 16 17 the generated information to the client, 18 causing the client to transmit the input voice 19 information to the voice processing server together with 20 the processing identification information after 21 receiving the information from the information providing 22 server, 23 causing the voice processing server to perform 24 voice processing for the voice information from the 25 client, and transmitting a voice processing result and

A voice processing method according to

the processing identification information from the

client to the information providing server, and

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32 result obtained by the voice processing server, and 33 transmitting the prepared information to the terminal. 26. A voice processing method according to 2 claim 25, characterized by further comprising the step 3 of causing the client to output unique identification 4 information of the client, 5 wherein the step of causing the client to 6 transmit the processing identification information 7 comprises the step of transmitting the unique 8 identification information of the client as the 9 processing identification information. A voice processing method according to 2 claim 26, characterized in that the step of outputting 3 comprises the step of using terminal identification 4 information held in advance by the client as the unique 5 identification information. A voice processing method according to 2 claim 26, characterized in that the step of outputting

comprises the step of generating the unique

identification information on the basis of terminal

identification information held in advance by the

prepare, in correspondence with the processing

identification information from the voice processing

server, information reflecting the voice processing

causing the information providing server to

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client.

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A voice processing method according to

- 2 claim 23, characterized in that
- 3 the terminal, the voice processing unit, and
- 4 the information providing unit are respectively a
- 5 client, a voice processing server, and an information
- 6 providing server which are communication-connected to
- 7 each other, and
- 8 the method comprises the steps of
- 9 causing the client to transmit a service
- 10 request signal to the information providing server,
- 11 causing the information providing server to
- 12 generate information to be presented to the client when
- 13 receiving the service request signal, and transmitting
- 14 the generated information to the client,
- 15 causing the client to transmit a voice
- 16 processing request signal to the voice processing
- 17 server,
- causing the voice processing server to
- 19 generate the processing identification information when
- 20 receiving the voice processing request signal, and
- 21 transmitting the processing identification information
- 22 to the client,
- 23 causing the client to receive the processing
- 24 identification information from the voice processing
- 25 server and transmit the processing identification
- 26 information to the information providing server, and
- 27 transmitting the input voice information to the voice
- 28 processing server together with the processing

32 client, and transmitting a voice processing result and 33 the processing identification information from the 34 client to the information providing server, and 35 causing the information providing server to 36 prepare, in correspondence with the processing 37 identification information from the voice processing 38 server, information reflecting the voice processing 39 result obtained by the voice processing server, and 40 transmitting the prepared information to the terminal. 30. An information providing server unit 2 characterized by comprising: 3 first reception means for receiving a service request signal from a client; 4 5 identification information generating means 6 for generating processing identification information 7 corresponding to a series of processes performed on the basis of voice information from said client when the 8 service request signal is received; 9 10 means for generating first information to be 11 presented to said client on the basis of the processing 12 identification information;

voice processing for the voice information from the

causing the voice processing server to perform

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identification information,

processing identification information and the first

information to said client;

first transmission means for transmitting the

17 processing result and the processing identification 18 information from a voice processing server which 19 performs voice processing upon receiving the voice 20 signal and the processing identification information 21 from said client; 22 means for generating second information 23 reflecting the voice processing result in correspondence 24 with the processing identification information from the 25 voice processing server; and 26 second transmission means for transmitting the 27 second information to said client. 31. A client unit characterized by 2 comprising: 3 unique identification information output means 4 for outputting unique identification information of the 5 client unit as processing identification information 6 corresponding to a series of processes performed by a 7 voice processing server which performs voice processing 8 for voice information from the client unit and an 9 information providing server which transmits information 10 reflecting a voice processing result obtained by said 11 voice processing server to the client unit; 12 first transmission means for transmitting a 13 service request signal and the processing identification 14 information to said information providing server when a 15 service request is issued; and

second reception means for receiving a voice

- second transmission means for transmitting the 17 input voice information to said voice processing server
- 18 together with the processing identification information.
 - A client unit according to claim 31,
- 2 characterized in that said unique identification
- 3 information output means uses, as the unique
- 4 identification information without any change, terminal
- 5 identification information held in advance by the client
- 6 unit.

- A client unit according to claim 31,
- 2 characterized in that said unique identification
- 3 information output means comprises means for generating
- 4 the unique identification information on the basis of
- 5 terminal identification information held in advance by
- 6 the client unit.
 - A voice processing server unit
- 2 characterized by comprising:
- 3 first reception means for receiving a voice
- processing request signal from a client; 4
- 5 identification information generating means
- 6 for generating processing identification information
- 7 corresponding to a series of processes performed on the
- 8 basis of voice information from said client when the
- 9 voice processing request signal is received;
- 10 first transmission means for transmitting the
- 11 processing identification information to said client;
- 12 second reception means for receiving the voice

13 information and the processing identification 14 information from said client; 15 voice processing executing means for 16 performing voice processing for the voice information 17 from said client; and 18 transmission means for transmitting, to an 19 information providing server, a voice processing result 20 obtained by said voice processing executing means and 21 the processing identification information from said 22 client, while generating information reflecting the 23 voice processing result in correspondence with the 24 processing identification information. 35. A program which causes a computer serving 2 as an information providing server unit to implement: 3 a first reception function of receiving a service request signal from a client; 4 5 an identification information generating function of generating processing identification 6 7 information corresponding to a series of processes 8 performed on the basis of voice information from the client when the service request signal is received; 10 a function of generating first information to 11 be presented to the client on the basis of the 12 processing identification information; 13 a first transmission function of transmitting 14 the processing identification information and the first

information to the client;

19 processing result and the processing identification 20 information from a voice processing server which 21 performs voice processing; 22 a function of generating second information 23 reflecting the voice processing result in correspondence 24 with the processing identification information from the 25 voice processing server; and 26 a second transmission function of transmitting 27 the second information to the client. 36. A program which causes a computer serving 2 as a client unit to implement: 3 a unique identification information output 4 function of outputting unique identification information 5 of the client unit as processing identification 6 information corresponding to a series of processes 7 performed by a voice processing server which performs 8 voice processing for voice information from the client 9 unit and an information providing server which transmits

voice signal and the processing identification

information from the client and receiving a voice

a second reception function of receiving the

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client unit;

identification information to the information providing

information reflecting a voice processing result to the

a service request signal and the processing

server when a service request is issued; and

a first transmission function of transmitting

16 a second transmission function of transmitting 17 the input voice information and the processing identification information to the voice processing 18 19 server. 37. A program according to claim 36, wherein 2 as the unique identification information output 3 function, the program implements a function of using terminal identification information held in advance by 4 5 the client unit as the unique identification information 6 without any change. 38. A program according to claim 36, wherein 2 as the unique identification information output 3 function, the program implements a function of generating the unique identification information on the 4 5 basis of terminal identification information held in 6 advance by the client unit. A program which causes a computer serving 2 as a voice processing server unit to implement: 3 a first reception function of receiving a 4 voice processing request signal from a client; 5 an identification information generating 6 function of generating processing identification 7 information corresponding to a series of processes 8 performed on the basis of voice information from the 9 client when the voice processing request signal is 10 received; 11 a first transmission function of transmitting - 64 -

13 a second reception function of receiving the 14 voice information and the processing identification 15 information from the client; 16 a voice processing execution function of 17 executing voice processing for the voice information 18 from the client; and 19 a transmission function of transmitting, to an 20 information providing server, a voice processing result 21 obtained by the voice processing execution function and 22 the processing identification information from the 23 client, while generating information reflecting the 24 voice processing result in correspondence with the 25 processing identification information. An information processing system 40. 2 characterized by comprising a client and a plurality of 3 servers, wherein a series of processes (A), (B), and 4 5 (C): 6 (A) in association with processing executed by 7 at least one of said plurality of servers on the basis 8 of a request from said client, processing is performed 9 by another server in accordance with the request,

the processing identification information to the client;

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response information in response to the request on the

said another server and said one server, and

(B) exchanging a processing result between

(C) causing said one server to generate

- 14 basis of the processing result
- 15 are managed by common processing identification
- 16 information shared by said client, said one server, and
- 17 said another server.
 - 41. An information processing system
- 2 according to claim 40, characterized in that the
- 3 processing identification information is generated by
- 4 one of said one server and said another server.
 - 42. An information processing system
- 2 according to claim 40, characterized in that as the
- 3 processing identification information, unique
- 4 identification information of said client is used.
 - 43. An information processing system
- 2 according to claim 40, characterized in that
- 3 said one server comprises a Web server, and
- 4 said another server comprises a voice processing server
- 5 which performs voice processing, and
- 6 voice uttered by a user which is input to said
- 7 client is managed by the processing identification
- 8 information.